CHANGES TO THE CLAIMS

Claims 1-26 (cancelled)

27. (currently amended) A somatic embryo transformed with a plastid transformation vector suitable for transforming a plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark, wherein said somatic embryo is homoplasmic.

Claims 28-31 (cancelled)

32. (currently amended) A method of achieving plastid transformation using explants, wherein a plant is regenerated through somatic embryogenesis comprising the steps of:

a) creating a transplastomic plant cell by transforming a plant plastid in a plant cell with a plastid transformation vector suitable for transforming a plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene, a selectable marker gene encoding a protein that confers resistance of the plant cell to a selection agent, and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark;

b) culturing the transplastomic plant cell in presence of the selection agent under conditions that allow the transplastomic cell to form a homoplasmic somatic embryo; and

c) growing said somatic embryo into a transplastomic plant.

Claims 33-39 (cancelled)

40 (currently amended) A method of transforming a plant plastid and regenerating a transplastomic, homoplasmic plant by somatic embryogenesis, said method comprising:

a) creating a transplastomic plant cell by transforming a plant plastid in a plant cell with a plastid transformation vector suitable for transforming a plant cell, said plastid vector comprising, as operably linked components, a first flanking sequence, a DNA sequence coding for a foreign gene, a selectable marker gene encoding a protein that confers resistance of the plant cell to a selection agent, and a second flanking sequence, wherein said flanking sequences are from the same species as said plant cell, wherein the vector further comprises a 5' regulatory sequence functional in proplastids and chloroplasts in light and in dark, said plant cell being capable of being regenerated through somatic embryogenesis;

b) culturing the transplastomic plant cell in presence of the selection agent under conditions that allow the transplastomic cell to form a somatic embryo, said somatic embryo being homoplasmic; and

c) growing the homoplasmic somatic embryo into a transplastomic, homoplasmic plant.

41 (cancelled)

42. (previously presented) The method of claim 40 wherein the plant is selected from the group consisting of a cereal crop, a legume, an oil crop, a cash crop, a vegetable, a fruit, a nut, and a tree.

43. (previously presented) The somatic embryo of claim 27, wherein said regulatory sequence comprises a promoter and said promoter is operative in proplastids and chloroplasts in light and in dark.